



March 25, 2021

Mr. Austin F. Callwood, Director
Division of Environmental Protection
Department of Planning & Natural Resources
45 Mars Hill
Frederiksted, V.I. 00840-4474

SUBJECT: East Fuel Gas H₂S Exceedance – March 18, 2021 - Ongoing

Dear Mr. Callwood:

This letter is submitted in compliance with Condition No. 2.4.5.1 of Limetree Bay Title V permit as a follow-up to the email notification to Ms. Verline Marcellin of the Division of Environmental Protection on Thursday, March 18, 2021 at 04:05 AM regarding H₂S exceedance at the east fuel gas system.

The Continuous Emissions Monitoring System (CEMS) recorded H₂S concentrations in the fuel gas in excess of 0.1 gr/dscf (162 ppm) based on a 3-hr rolling average (ref. Title V permit condition 3.2.2.1.10) from Thursday, March 18, 2021 at 02:00 AM to present.

The following table provides 3-hr H₂S concentrations during the exceedance event.

Source	Parameter	Unit	EASTFGDR
			H ₂ SPPM (PPM)
03/18/21	00:00		117
03/18/21	01:00		155
03/18/21	02:00		189
03/18/21	03:00		228
03/18/21	04:00		261
03/18/21	05:00		293
03/18/21	06:00		326
03/18/21	07:00		369
03/18/21	08:00		429
03/18/21	09:00		544
03/18/21	10:00		678
03/18/21	11:00		807
03/18/21	12:00		807
03/18/21	13:00		871
03/18/21	14:00		941
03/18/21	15:00		1,042
03/18/21	16:00		1,166
03/18/21	17:00		1,173
03/18/21	18:00		1,252
03/18/21	19:00		1,319
03/18/21	20:00		1,410
03/18/21	21:00		1,335
03/18/21	22:00		1,295

Source	Parameter	Unit	EASTFGDR
			H ₂ SPPM (PPM)
03/18/21	23:00		1,283
03/19/21	00:00		1,286
03/19/21	01:00		1,216
03/19/21	02:00		1,159
03/19/21	03:00		1,185
03/19/21	04:00		1,054
03/19/21	05:00		780
03/19/21	06:00		373
03/19/21	07:00		158
03/19/21	08:00		156
03/19/21	09:00		262
03/19/21	10:00		524
03/19/21	11:00		751
03/19/21	12:00		1,028
03/19/21	13:00		1,079
03/19/21	14:00		1,037
03/19/21	15:00		968
03/19/21	16:00		767
03/19/21	17:00		631
03/19/21	18:00		553
03/19/21	19:00		589
03/19/21	20:00		571
03/19/21	21:00		452

Source	Parameter	Unit	EASTFGDR
			H ₂ SPPM (PPM)
03/19/21	22:00		487
03/19/21	23:00		523
03/20/21	00:00		474
03/20/21	01:00		347
03/20/21	02:00		256
03/20/21	03:00		241
03/20/21	04:00		232
03/20/21	05:00		234
03/20/21	06:00		246
03/20/21	07:00		253
03/20/21	08:00		342
03/20/21	09:00		541
03/20/21	10:00		909
03/20/21	11:00		1,188
03/20/21	12:00		1,371
03/20/21	13:00		1,369
03/20/21	14:00		1,397
03/20/21	15:00		1,304
03/20/21	16:00		1,201
03/20/21	17:00		796
03/20/21	18:00		456
03/20/21	19:00		145
03/20/21	20:00		128



Source		EASTFGDR
Parameter Unit		H2SPPM (PPM)
03/20/21	21:00	162
03/20/21	22:00	165
03/20/21	23:00	161
03/21/21	00:00	195
03/21/21	01:00	260
03/21/21	02:00	303
03/21/21	03:00	311
03/21/21	04:00	297
03/21/21	05:00	306
03/21/21	06:00	411
03/21/21	07:00	576
03/21/21	08:00	734
03/21/21	09:00	965
03/21/21	10:00	1,133
03/21/21	11:00	1,371
03/21/21	12:00	1,429
03/21/21	13:00	1,502
03/21/21	14:00	1,501
03/21/21	15:00	1,510
03/21/21	16:00	1,559
03/21/21	17:00	1,695
03/21/21	18:00	1,726
03/21/21	19:00	1,638
03/21/21	20:00	1,477
03/21/21	21:00	1,148
03/21/21	22:00	855
03/21/21	23:00	572
03/22/21	00:00	672
03/22/21	01:00	845
03/22/21	02:00	1,022
03/22/21	03:00	891
03/22/21	04:00	677
03/22/21	05:00	416
03/22/21	06:00	339
03/22/21	07:00	525
03/22/21	08:00	910

Source		EASTFGDR
Parameter Unit		H2SPPM (PPM)
03/22/21	09:00	1,254
03/22/21	10:00	1,445
03/22/21	11:00	1,562
03/22/21	12:00	1,646
03/22/21	13:00	1,690
03/22/21	14:00	1,618
03/22/21	15:00	1,593
03/22/21	16:00	1,543
03/22/21	17:00	1,607
03/22/21	18:00	1,600
03/22/21	19:00	1,416
03/22/21	20:00	1,144
03/22/21	21:00	1,021
03/22/21	22:00	1,077
03/22/21	23:00	1,227
03/23/21	00:00	1,229
03/23/21	01:00	1,292
03/23/21	02:00	1,083
03/23/21	03:00	956
03/23/21	04:00	893
03/23/21	05:00	997
03/23/21	06:00	1,129
03/23/21	07:00	1,093
03/23/21	08:00	1,181
03/23/21	09:00	1,195
03/23/21	10:00	1,286
03/23/21	11:00	1,286
03/23/21	12:00	1,390
03/23/21	13:00	1,321
03/23/21	14:00	1,321
03/23/21	15:00	1,520
03/23/21	16:00	1,607
03/23/21	17:00	1,860
03/23/21	18:00	1,797
03/23/21	19:00	1,749
03/23/21	20:00	1,588

Source		EASTFGDR
Parameter Unit		H2SPPM (PPM)
03/23/21	21:00	1,521
03/23/21	22:00	1,424
03/23/21	23:00	1,344
03/24/21	00:00	1,149
03/24/21	01:00	1,181
03/24/21	02:00	1,309
03/24/21	03:00	1,530
03/24/21	04:00	1,525
03/24/21	05:00	1,498
03/24/21	06:00	1,466
03/24/21	07:00	1,589
03/24/21	08:00	1,674
03/24/21	09:00	1,703
03/24/21	10:00	1,705
03/24/21	11:00	1,804
03/24/21	12:00	1,853
03/24/21	13:00	1,872
03/24/21	14:00	1,751
03/24/21	15:00	1,737
03/24/21	16:00	1,612
03/24/21	17:00	1,657
03/24/21	18:00	1,562
03/24/21	19:00	1,494
03/24/21	20:00	1,218
03/24/21	21:00	1,073
03/24/21	22:00	998
03/24/21	23:00	1,038
03/25/21	00:00	1,041
03/25/21	01:00	1,020
03/25/21	02:00	1,002
03/25/21	03:00	1,020
03/25/21	04:00	1,060
03/25/21	05:00	1,112
03/25/21	06:00	1,074
03/25/21	07:00	954
03/25/21	08:00	770



On March 18, 2021, hydrocarbon carryover due to high level in the stripper receiver at No. 7 Distillate Desulfurizer (DD7) entered the No. 2 Gas Recovery Unit (2GRU) impacting the low-pressure amine contactor. The hydrocarbon-saturated amine from the amine contactor went to the amine flash drum which was lined up to the No. 5 Amine Regeneration Unit (5ARU). As a result, the hydrocarbon caused high level in the 5ARU amine still receiver. From the 5ARU amine still receiver, hydrocarbon carried over to the No. 4 Sulfur Recovery Unit (4SRU) via the acid gas header. Operations' response to the carry over was to cut the acid gas header feed to 4SRU, which caused backpressure to 5ARU. Due to the upset conditions at 2GRU and 5ARU, the removal efficiency for H₂S was greatly reduced. Process adjustments were made to reduce the level in the stripper receiver. Operations began skimming hydrocarbon from 5ARU and the amine flash drum. Also, the amine flash drum level system was serviced.

On the following day, March 19, 2021, a similar incident occurred where the hydrocarbon carryover to the 2GRU originated at the stripper receiver in No. 9 Distillate Desulfurizer (DD9). It was discovered that the level gauge on the stripper receiver was faulty. The level gauge was repaired by Maintenance and put back into service.

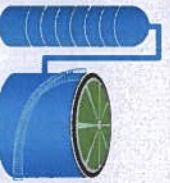
On March 23, 2021, the No. 4 Amine Regeneration Unit (4ARU) was placed in service while the work on 5ARU and the amine flash drum continued. Later that day, hydrocarbon carryover from the stripper receiver at DD9 occurred again impacting 2GRU and 4ARU. Process adjustments were made to reduce the level in the stripper receiver. Operations began skimming the hydrocarbon from 4ARU.

We are committed to resolving these issues as expeditiously as possible and bringing the units back into compliance. If you have any questions or need additional information, please contact Maria Aloyo at (340) 692-3781.

Sincerely,

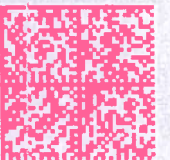
Robert Weldzius
Senior Vice President
Limetree Bay Refining, LLC

cc: Verline Marcellin
(DPNR)



LIMETREE BAY
REFINING, LLC

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